

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested. Claims 5, 13, and 29 are currently amended. Claims 16-24 are canceled without prejudice or disclaimer to the underlying subject matter. Claims 1-15 and 25-33 are pending in the application.

In response to the objection to claim 5, claims 5, 13, and 29 have been amended to replace “Signalling” with “Signaling”.

Claims 1, 9, and 25 stand rejected under 35 USC §103 in view of U.S. Patent Publication No. 2003/0108067 by Craig et al., U.S. Patent Publication No. 2003/0031178 by Haeri et al., and U.S. Patent No. 6,987,781 to Miller et al. This rejection is respectfully traversed, as the rejection fails to articulate any reasoning or *rational* basis for the obviousness rejection, as required by the Federal Circuit and the Supreme Court.¹ To the contrary, the rejection relies on unfounded and inconsistent statements that demonstrate a tortured interpretation of the references,² and an unreasonable interpretation of the claims³ that disregards explicitly claimed features.⁴ As such,

¹“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int'l v. Teleflex, Inc.* No. 04-1350, Slip. op. at 14, 82 USPQ2d 1385, 1396 (U.S. Apr. 30, 2007) (*quoting In re Kahn*, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006))

²“A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” MPEP §2141.02.VI, page 2100-126 (Rev. 6, Sept. 2007) (*citing W.L. Gore & Assoc. v. Garlock, Inc.*, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)) (emphasis in original).

³“During patent examination, the pending claims must be ‘given their broadest reasonable interpretation consistent with the specification.’” MPEP §2111 at 2100-46 (Rev. 3, Aug. 2005) (*quoting In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000)).

“The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach.” MPEP §2111.01 at 2100-47 (Rev. 3, Aug. 2005) (*citing In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir.

the rejection improperly relies upon *ex post* reasoning by “[reading] into the prior art the teachings of the invention in issue”.⁵

Each of the independent claims specify *a signaling gateway* configured for sharing a prescribed point code shared with each of a plurality of Voice over IP-based application server process groups that are distinct from the signaling gateway.

As described in the specification, a *signaling gateway* is configured for routing an SS7 signaling message received from an SS7 network (e.g., 22 of Fig. 1; 22 of Fig. 3) to an IP network (e.g., 20 of Fig. 1; 40 of Fig. 3) (e.g., page 3, lines 3-22; page 4, lines 1-8; page 7, lines 15-25). As illustrated in Figure 4, the signaling gateway 44 includes an SS7 signaling interface 60 configured for sending and receiving SS7 signaling messages to and from the SS7 signaling network 22 (see, e.g., page 9, lines 13-16). The signaling gateway 44 also includes an Internet Protocol (IP) interface 68 configured for sending and receiving messages from the Voice over IP network 40 (see, e.g., page 12, lines 24-25).

Hence, the broadest *reasonable* interpretation cannot be inconsistent with the specification, which requires the signaling gateway to include a switched circuit network interface and a data network interface, where the switched circuit network interface is configured for receiving an SS7 signaling message via a signaling network, and the data network interface is configured for sending and receiving messages from Voice over IP-based nodes in the IP network.

1999)).

⁴It is well settled that each and every claim limitation must be considered. As specified in MPEP §2143.03, entitled “**All Claim Limitations Must Be Taught or Suggested**”: “To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). ‘All words in a claim must be considered in judging the patentability of that claim against the prior art.’ *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” MPEP §2143.03 at 2100-131 (Rev. 5, Aug. 2006).

⁵ *KSR Int'l v. Teleflex, Inc.* No. 04-1350, Slip. Op. at 17, 82 USPQ2d at 1397 (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459, 474 (1966)).

Moreover, the *signaling gateway* is configured for determining a congestion level for each of the application server process groups. Hence, the signaling gateway, in response to receiving an SS7 message destined for the prescribed point code, can *selectively* send to the originating node a congestion notification message based on determining the identified priority of the message signaling unit in the SS7 message does not exceed the corresponding congestion level for the candidate group identified by the signaling gateway. As described in the specification (see, e.g., page 5, lines 13-16 and 20-23; page 6, lines 4-6; page 8, line 16 to page 9, line 12; page 12, line 26 to page 12), the determining of a congestion level for *each of a plurality of Voice over IP-based application server process groups* sharing the same point code enables the signaling gateway to more precisely control congestion management, minimizing the transmission of unnecessary congestion notification messages.

These and other features are neither disclosed nor suggested in the applied prior art.

As admitted in the rejection, Craig et al. fails to disclose or suggest determining by a signaling gateway a congestion level for each of the voice over IP-based application server process groups. Further, Craig et al. fails to disclose or suggest any Voice over IP based application server process *groups* that are distinct from the signaling gateway, as claimed.

Craig et al. illustrates a prior art signaling gateway 112 in Figure 2 (para. 10-11) and 250 in Fig. 3 as having an SS7 link interface module (LIM) 258 and a data communications module (DCM) 260 providing a TCP/IP interface (para. 35-36). Further, Craig et al. describes the routing node 270 of Fig. 4 as an example signaling gateway (see, e.g., paragraph 14, lines 1-10; paragraph 35, lines 1-7; paragraph 37 and paragraph 66).

Moreover, Craig et al. describes with respect to Fig. 4 that the SS7 link interface module (LIM) 300 (illustrated in detail in Fig. 5), the data communication module (DCM) 350 (illustrated in detail in Fig. 6) are “physically connected to [an interprocessor message transport] IMT bus 320 such that signaling and other types of messages may be routed internally between active cards or modules” (para. 38, lines 7-9); hence the routing node 270 includes “multiple LIM, DCM and other cards all of which may be simultaneously connected to and communicating via IMT bus 320” (para. 38, lines 14-16).

Hence, the assertion in the rejection that “the DCM is the signaling gateway” is a gross mischaracterization of Craig et al., which explicitly specifies that the routing node 270 is the signaling gateway, and the “DCM” (260 of Fig. 3, 350 of Fig. 4) is a TCP/IP or SCTP/IP interface coupled to an internal message bus 320 and implemented as a printed circuit board (para. 39).

Further, the elements “MASP A” and “MASP B” 272 in Fig. 4 are described in Craig et al. as maintenance and administration subsystem processors that provide no more functionality other than providing maintenance communications, initial program loading, peripheral services, alarm processing and system disks (paragraph 35, lines 13-15; para. 38, lines 4-6; paragraph 40, lines 1-5). Hence, the MASP 272 cannot be considered a teaching of the claimed application server process groups, especially because the MASP do not perform the claimed operation of “providing services for a corresponding message signaling unit attribute”, as claimed. The routing of an SS7 signaling message by the routing node 270 to the media gateway controller 114 as described in paragraph 41 further demonstrates that the MASP modules 272 do not provide any application services, as claimed; to the contrary, the received SS7 signaling message is routed to the media gateway controller 114 to allow the media gateway controller 114 to provide application services.

Further, the MASP 272 are not distinct from the signaling gateway, as claimed, especially because Craig et al. describes the routing node 270 as an example signaling gateway (see, e.g., paragraph 14, lines 1-10; paragraph 35, lines 1-7; paragraph 37 and paragraph 66). Craig et al. specifies at para. 38, lines 1-10 that the routing node 270 includes the high-speed IMT bus 320 and the maintenance and administration subsystem processors (MASPs) 272 that are coupled to the high speed IMT bus 320.

Hence, Craig et al. fails to disclose or suggest application server process groups *distinct from the signaling gateway*, where each application server process group has at least one assigned application server process configured for providing services for a corresponding message signaling unit attribute, as claimed. For this reason alone the §103 rejection must be withdrawn because the rejection fails to demonstrate that the applied prior art includes all the

claimed features.

Further, paragraph 86 of Craig et al. simply describes the ability to forward user part unavailable (UPU) messages or transfer controlled (TFC) messages that are sent by remote applications. There is no disclosure or suggestion that the routing node itself *selectively* sends a congestion notification message based on determining an *identified priority* of the message signaling unit does not exceed the corresponding congestion level for the candidate group. Rather, the routing node 270 simply forwards received messages "sent by remote level four applications to indicate congestion." Hence, paragraph 86 teaches away from the claimed feature by specifying that the remote applications determined the congestion, and not the routing node, as asserted.

Haeri et al. is directed to adjusting packet bandwidth at a customer premises network, and is not within the field of the inventors' endeavor, namely transport of common channel SS7 signaling messages to a call agent according to a prescribed Voice Over IP telephony protocol; further, Haeri et al. is not reasonably pertinent to the particular problem with which the inventors were involved, namely controlling congestion for an identified IP node within the Voice over IP node, without otherwise affecting signaling traffic destined to other IP nodes within the Voice over IP network. O'Brien et al. provides no disclosure or suggestion of a *signaling gateway* that interfaces between an SS7 network and an IP network, and as such is non-analogous art. *In re Wood*, 202 USPQ 171, 174 (CCPA 1979). *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

Haeri et al. simply describes a customer premises router 102 that passes traffic from the Internet to a classifier 109 that monitors the packet traffic passing through the router 102: the traffic shaper 110 dynamically controls the maximum bandwidth for each connection through a switch 112 to any workstation 114 or any client 116. However, the description with respect Figure 1 of Haeri et al. is strictly limited to a customer premises network, and provides no disclosure or suggestion for interfacing with an SS7 network, as claimed. Hence, the assertion on page 5 of the rejection that "the units 109 and 110 combined can be the signaling gateway" demonstrates an unreasonable disregard of the explicit claim features defining a signaling

gateway receiving an SS7 message (described above), and an unreasonable interpretation that is inconsistent with the specification (described above) and inconsistent with the interpretation those skilled in the art would reach. In fact, both Craig et al. and Miller et al. properly define a signaling gateway as interfacing between an SS7 network and a Voice over IP network (compare Fig. 3 of Craig et al. with Fig. 4 of Miller et al.).

Miller et al. provides no disclosure or suggestion of process groups, as claimed.

Hence, the rejection fails to demonstrate that “there was an apparent reason to combine the known elements *in the fashion claimed.*” *KSR Int’l v. Teleflex, Inc.* No. 04-1350, 550 U.S. ___, Slip. op. at 14, 82 USPQ2d 1385, 1396 (U.S. Apr. 30, 2007). The rejection has failed to establish the analysis as required by the Supreme Court. Rather, the hypothetical combination teaches no more than “the predictable use of prior art elements according to their established functions,” *Id.*, with no disclosure or suggestion of the claimed features as a whole.

A demonstrated above, none of the applied references, singly or in combination, disclose or suggest the claimed signaling gateway determining a congestion level *for each of a plurality of Voice over IP-based application server process groups*, where each of the application server process groups: (1) are distinct from the signaling gateway; (2) share a same prescribed point code with the signaling gateway; and (3) have at least one assigned application server process sharing the prescribed point code and configured for providing services for a corresponding message signaling unit attribute.

Moreover, none of the applied references, singly or in combination, disclose or suggest the claimed signaling gateway *selectively* sending by the signaling gateway to the originating node a congestion notification message based on determining that *an identified priority of the message signaling unit* does not exceed the corresponding congestion level for the candidate group. In fact none of the applied references disclose or suggest any priority of a messaging signaling unit within a received SS7 message.

For these and other reasons, the §103 rejection of independent claims 1, 9, and 25 must be withdrawn.

It is believed the dependent claims are allowable in view of the foregoing.

In view of the above, it is believed this application is in condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-1130, under Order No. 95-496, and please credit any excess fees to such deposit account.

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